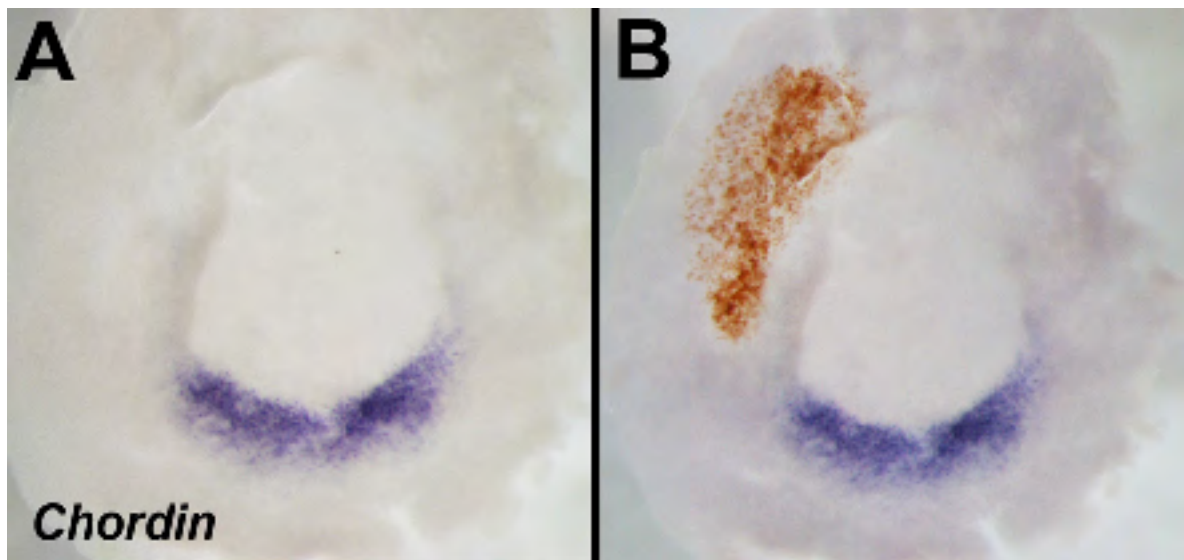
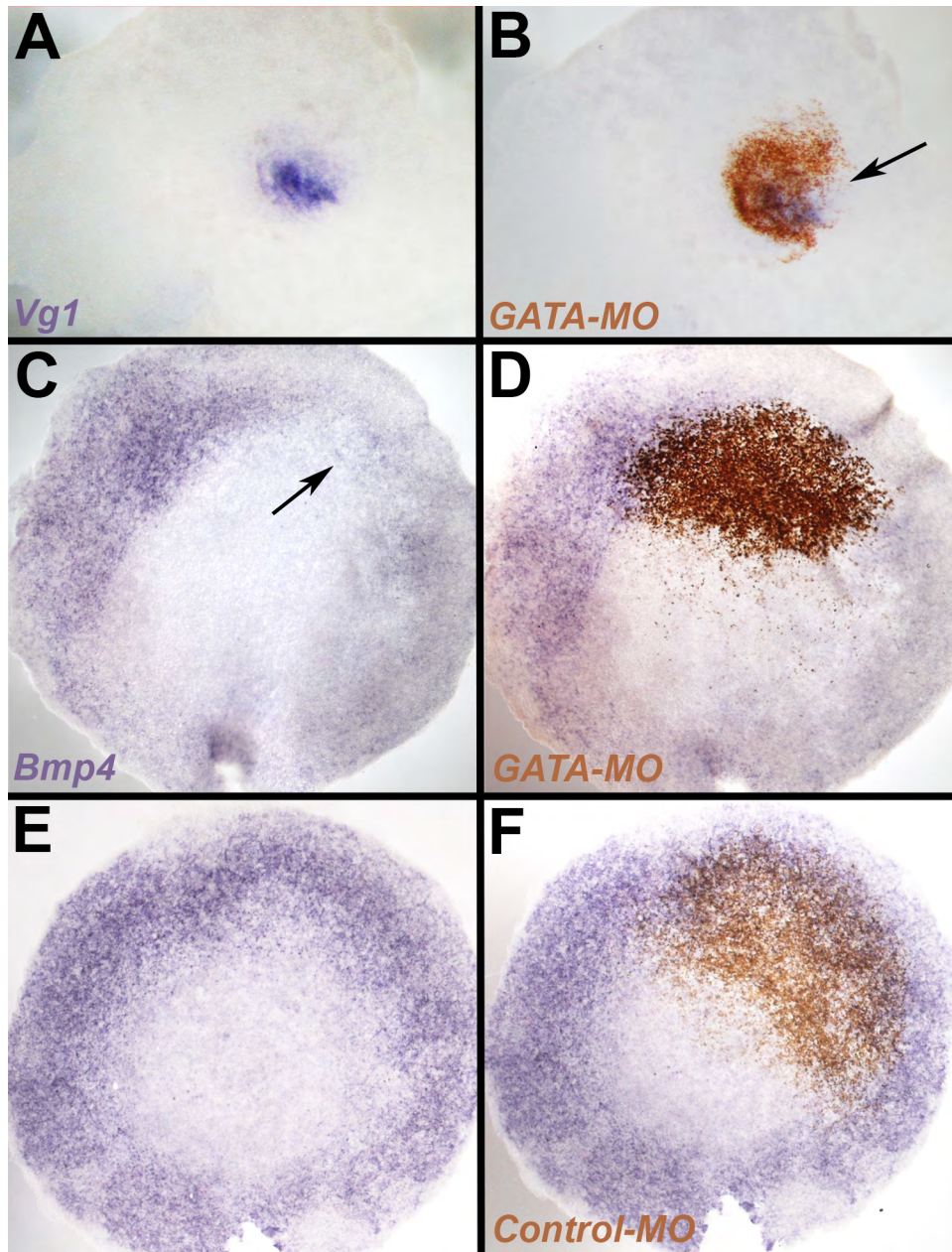


**Fig. S1. *Gata3* is not expressed before primitive streak formation.** In situ hybridisation for *Gata3* at pre-streak stages X (A) and XIII (B) show no expression, whereas embryos at stage 5<sup>-</sup> (C) show expression in the prospective epidermis, as previously reported (Sheng and Stern, 1999).



**Fig. S2. GATA knockdown does not induce or extend Koller's sickle.** To test whether GATA knockdown could either induce an ectopic Koller's sickle, or somehow attract sickle cells, *Gata2/3* morpholinos were electroporated anteriorly (anti-fluorescein, brown) and embryos examined for ectopic expression of *Chordin*, which at this stage is specific for the sickle (purple). Neither ectopic expression nor an extension of the endogenous domain into the electroporated region was seen. The embryo shown is at stage XIII.



**Fig. S3. Epistasis experiments to test whether GATA acts through induction of *Vg1* or *Bmp4*.** (A,B) *GATA-MO* was electroporated into the anterior half of an embryo (experimental design as in Fig. 4D), and expression of *Vg1* examined after 9 hours. An example is shown after in situ hybridisation for *Vg1* (A) and the same case after staining with anti-fluorescein to reveal the morpholino-electroporated cells (B). In this case, *Vg1* is upregulated in the region where *GATA* was knocked down. (C-F) *GATA-MO* (C,D) or control-MO (E,F) was electroporated anteriorly in an intact embryo and *Bmp4* expression examined 6 hours later. *GATA-MO* causes slight downregulation of *Bmp4* expression (C,D) when compared with the control (E,F).